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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/916,174	07/26/2001	Jochen Burgdorf	AP9974/64098-878	7113

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EXAMINER

BURCH, MELODY M

ART UNIT	PAPER NUMBER
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3683

DATE MAILED: 06/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/916,174

Applicant(s)

BURGDORF ET AL.

Examiner

Melody M. Burch

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-- Th MAILING DATE of this communication appears on the cover sheet with the correspond nce address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19,20,22-39 and 41-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19,20,22-39 and 41-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 May 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/21/03 has been entered.

Drawings

2. The drawings are objected to because:
- it is unclear to the Examiner whether the brake lining 5 as shown in the drawing of figure 1 shown in the bottom right corner is intended to be the contacting surface between elements 14 and 15. Although separate element numbers have been assigned to the brake lining 5 and the carrier plate 15. It is unclear to the Examiner where one element ends and the other begins. For examining purposes, the Examiner has interpreted the brake lining to be the contacting surface between a carrier plate and a friction lining as best shown in figure 1;
 - Figure 1 includes two different drawings. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

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3. Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect may be deferred until after the examiner has considered the proposed drawing correction. Failure to timely submit the proposed drawing correction will result in the abandonment of the application.

Specification

4. The disclosure is objected to because of the following informalities: Examiner recommends making reference to parts "a" and "b" of the figures in the brief description of drawings for clarity.

Appropriate correction is required.

Claim Objections

5. Claims 19, 20, 22-39, 41, 42, and 43 are objected to because of the following informalities:

- In claim 19 the phrase the period in "application." In line 3 from the bottom should be deleted;
- The comma between "assembly" and "comprising" in line 1 of the claims including but not limited to claim 19 should be deleted;
- The phrase "the groove-shaped indentations" claimed, for example, in lines 2-3 of claim 41 should be changed to --the at least one groove-shaped indentation-- to maintain consistent terminology;
- In line 2 from the bottom of claim 43 "positioning" should be changed to --position--. The list is not intended to be exhaustive.

The remaining claims are objected to due to their dependency from claim 19.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 19, 20, 22-38, 41, 42, and 43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re: claim 19. The phrase "arranged with respect to the central plane" is indefinite. It is unclear to the Examiner *how* the spring assembly is arranged with respect to the central plane of the brake housing.

Re: claim 41. The phrase "an indentation" in line 18 from the bottom of the claim is indefinite. It is unclear to the Examiner whether the indentation in line 18 from the bottom of the claim is intended to be the same or different from the grooved shaped indentations earlier claimed.

The following phrases lack proper antecedent basis in the claims:

- The phrase "the first leg" in lines 1-2 of claim 24 and in line 9 of claim 43;
- The phrase "the second leg" in the last two lines of claim 29;
- The phrase "the actuating device" in line 18 from the bottom of claim 41;
- The phrase "the second leg" in line 2 from the bottom of claim 41;
- The phrase "the second leg" in line 3 from the bottom of claim 42.

The list is not intended to be exhaustive.

The remaining claims are indefinite due to their dependency from claim 19.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 19, 20, 22, 23, 25, 37, 38, and 39 are rejected under 35 U.S.C. 102(b) as being anticipated by WIPO 98/00647 (using US Patent 6179095 to Weiler et al. throughout the action).

Re: claims 19, 37, 38, and 39. Weiler et al. show in figures 1, 5, and 6 a spot-type disc brake assembly comprising: a brake housing 3, an actuating device disclosed in col. 4 line 37 arranged in the brake housing to apply an actuating force to a first brake lining shown below element 5 in figure 5 detachably connected to the actuating device, a second brake lining (element below the opposite element 5) detachably connected to the actuating device and anchored axially on the brake housing via element 8 as disclosed in col. 4 lines 40-41, and a spring assembly 12 shown in figures 2 and 3 having a design that actively lifts and provides a clearance for the first brake lining, wherein the spring assembly is arranged with respect to the central plane of the brake housing, wherein the spring assembly includes: a first leg portion 17 which is detachably hooked at a shackle portion shown in the area of element 15 of the first brake lining,

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wherein a shackle 15,16 is shaped on a side of the first brake lining opposing a frictional lining 5 and being secured to the back side of a carrier plate shown in figure 5 having a front side that carries the frictional lining 5 in order to provide a point of force that radially overlaps a spring force that is exerted on a contact area of the first brake lining for actively lifting the actuating device after a braking application to the same extent as Applicant's, wherein the first leg portion of the spring assembly is supported on the first brake lining in a circumferential direction as shown.

Re: claims 20, 22, and 25. Weiler et al. show in figure 6 the limitation of the spring assembly abuts, in a protected fashion, in an indentation or bore shown between element numbers 9 and 24 of the brake housing.

Re: claim 23. Weiler et al. show the spring assembly being arranged in a recess 10 between two bridge portions or portions shown in the area of the lead line of element 3 shown on either side of recess 10.

10. Claims 19, 23, 24, and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 3722634 to Ogasawara et al.

Re: claims 19 and 37. Ogasawara et al. show in figures 2-4 a spot-type disc brake assembly comprising: a brake housing 30, an actuating device 70 arranged in the brake housing to apply an actuating force to a first brake lining 51 (left) detachably connected to the actuating device, a second brake lining 51 (right) detachably connected to the actuating device and anchored axially on the brake housing, and a spring assembly 34 having a design that actively lifts and provides a clearance for the first brake lining, wherein the spring assembly is arranged with respect to the central

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plane of the brake housing, wherein the spring assembly includes: a first leg portion shown in the area of element 102 as shown in figure 3 which is detachably hooked at a shackle portion shown in the area of element 51 of the first brake lining, wherein a shackle 51 is shaped on a side (an axial side) of the first brake lining opposing (the bottom portion of) a frictional lining 50 and being secured to the back side (leftmost side as shown in figure 3 via the front or rightmost side) of a carrier plate (unnumbered plate through which element 66 penetrates) having a front side that carries the frictional lining in order to provide a point of force that radially overlaps a spring force that is exerted on a contact area of the first brake lining for actively lifting the actuating device after a braking application to the same extent as Applicant's, wherein the first leg portion of the spring assembly is supported on the first brake lining in a circumferential direction as shown.

Re: claim 23. Ogasawara et al. show in figure 2 the limitation wherein the spring assembly is arranged in a recess between two bridge portions, one of the bridge portions being shown at the top of figure 2 in the area of element number 3, the other bridge portion being shown at the bottom of figure 2 in the area of element number 32.

Re: claim 24. Ogasawara et al. show in figure 2 the limitation wherein the first leg at its free end includes bent portions shown in the area of element 101 in figure 4 to permit ease of mounting the first leg at the shackle and to prevent the first leg from slipping out of the shackle.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ogasawara et al. in view of US Patent 4444296 to Marianu. Marianu teaches in figure 1 the use of a spiral-type tension spring used in a spot-type disc brake. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the spring of Ogaswara et al. to have included a spiral-type tension spring, as taught by Marianu, in order to provide a means of biasing the friction lining and carrier plate.

13. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ogasawara et al. in view of US Patent 4537288 to Stoka. Stoka teaches in col. 2 lines 9-10 the use of a compression spring used in a spot-type disc brake. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the spring of Ogaswara et al. to have included a compression spring, as taught by Stoka, in order to provide a means of biasing the friction lining and carrier plate.

14. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Weiler et al. in view of US Patent 4444296 to Marianu. Marianu teaches in figure 1 the use of a spiral-type tension spring used in a spot-type disc brake. It would have been obvious to

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one of ordinary skill in the art at the time the invention was made to have modified the spring of Weiler et al. to have included a spiral-type tension spring, as taught by Marianu, in order to provide a means of biasing the friction lining and carrier plate.

15. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Weiler et al. in view of US Patent 4537288 to Stoka. Stoka teaches in col. 2 lines 9-10 the use of a compression spring used in a spot-type disc brake. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the spring of Weiler et al. to have included a compression spring, as taught by Stoka, in order to provide a means of biasing the friction lining and carrier plate.

Allowable Subject Matter

16. Claims 26-34 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. Weiler et al. show the limitation of bent portions shown to the left and right of element 17 at the free end (or top) of the first leg portion shown in the area of element 13 in figure 2 but fail to show the bent portions arranged such that they both permit ease of mounting of the first leg to the shackle and prevent the first leg from slipping out of the shackle. Ogasawara et al. fail to show the limitation of two spring arms supported in a circumferential direction on the brake housing to prevent tilting movement.

17. Claims 41-43 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Response to Arguments

18. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection in view of Weiler et al.

19. With regards to amended claim 19, although claim 19 was amended to incorporate features of claim 21, it did not include the particular feature of spring assembly being supported on the first brake lining in a circumferential direction particularly *between two actuating devices*. Therefore, the rejections in view of Ogasawara et al. have been maintained.

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent 4487296 to Schreiner et al. teaches the use of a similar spring in a disc brake assembly.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 703-306-4618. The examiner can normally be reached on Monday-Friday (7:30 AM-4:00 PM).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder can be reached on 703-308-3421. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

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June 18, 2003


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